

**AMENDMENTS TO THE CLAIMS**

Please amend the claims as follows:

**Listing of Claims:**

Claims 1-17 (Cancelled).

Claim 18 (Previously Presented): An optical signal receiving equipment, comprising:  
an optical-electrical converting means for converting received optical signals into  
electronic signals;

a plurality of variable-threshold deciders configured to transform the electronic  
signals into a plurality of first binary signals;

a soft decision-identification means for computing identification signals based on  
results of transformation by the plurality of variable-threshold deciders, and for computing  
reliability information indicating a level of reliability of the identification signals;

an error correction means for correcting an error in the identification signals by using  
the reliability information computed by the soft decision-identification means;

a fixed-threshold decider configured to execute hard-decision identification of the  
electronic signals, independently from the soft decision-identification means and the plurality  
of variable-threshold deciders; and

a control means for executing the hard decision-identification of the electronic signals  
by using the fixed-threshold decider, for measuring an average amplitude of the electronic  
signals based on the hard decision-identification results, and for correcting a plurality of  
thresholds in the plurality of variable-threshold deciders based on a variation of the measured  
average amplitude over a time period.